

## CHANGES IN MATTER LAB

### Objective:

In this lab you will cause materials to undergo various physical and chemical changes. Your purpose is to observe the materials before and after the change. You will then classify each experiment as a physical or chemical change and justify your classifications.

### Procedure:

Make sure you make observations before, during, and after the change, and record each in your data table.

1. Place a pinch of sodium chloride (NaCl) into about 25ml of deionized water (H<sub>2</sub>O) and stir. Evaporate a few drops of the resulting liquid in an evaporating dish on a hot plate. Use tongs to handle the evaporating dish. Observe any resulting residue.
2. Place a pinch of sodium chloride (NaCl) into 25ml deionized water (H<sub>2</sub>O) and stir. Add to this mixture 5ml of silver nitrate solution (AgNO<sub>3</sub>) and swirl gently. Allow this mixture to settle and observe any residue that forms.
3. Put a strip of magnesium (Mg) into a small test tube that is one quarter full of dilute hydrochloric acid (HCl). When the action ceases, evaporate a few drops of the resulting liquid in test tube using a water bath. Observe any residue that forms.
4. Place a tiny piece of wax on a piece of aluminum foil that has been shaped into a small dish. Heat the aluminum dish for 1 minute using a hot plate. Remove the dish with tongs, allow to cool, and observe the residue.

Experiment	Observations before	Observations during	Observations after	Physical or chemical change?	Reason
1 NaCl + H <sub>2</sub> O					
2 NaCl + AgNO <sub>3</sub>					
3 Mg + HCl					
4 wax					

**Summarize:** What are the differences between physical and chemical changes?